J. J. King.

Door Knob.

No. 95,024. Patented Sept. 21, 1869.

Fig: 3.

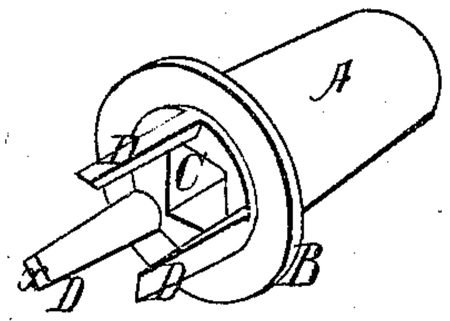


Fig: 4.

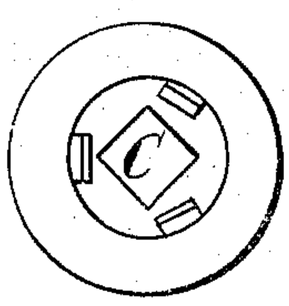


Fig: 5.

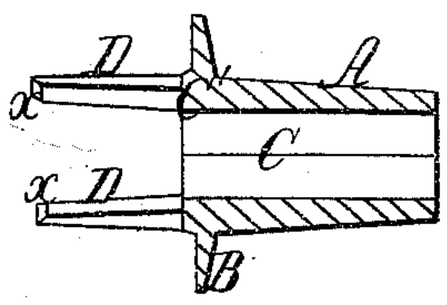


Fig: 6.

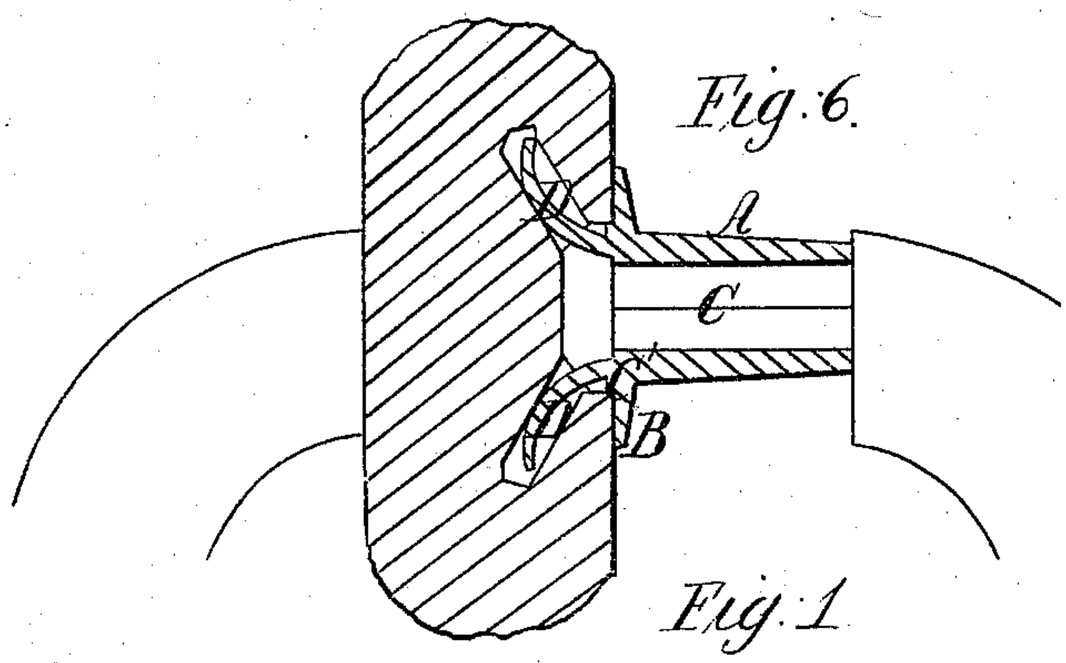


Fig: 7

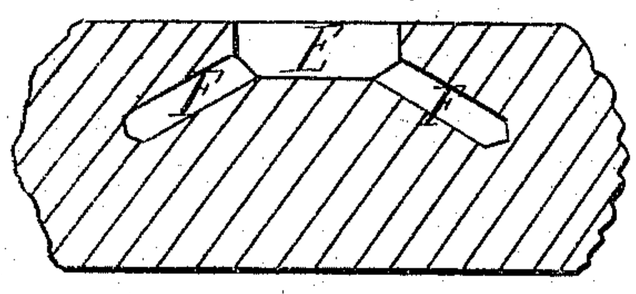


Fig: 2.

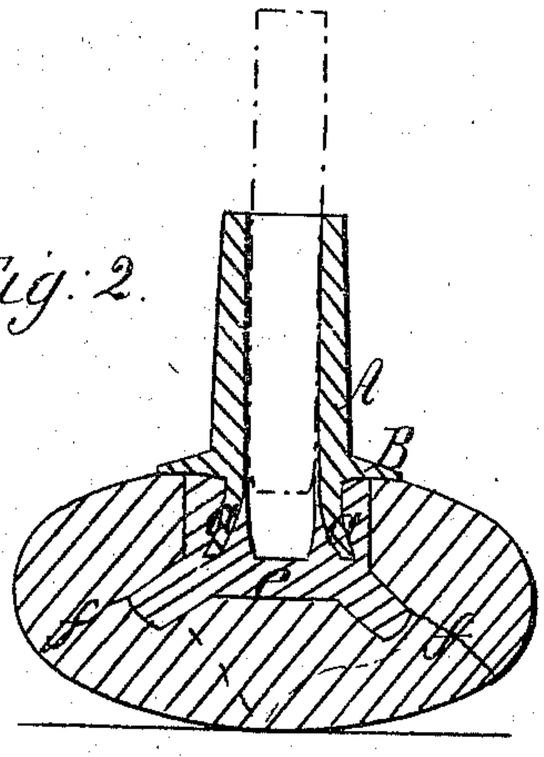
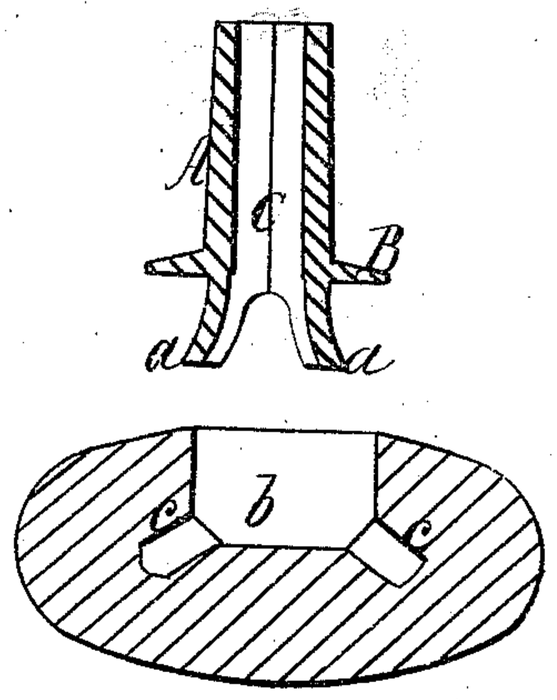


Fig: 1



Witnesses;

A. B. Malcamson Jr

J. Bowman

Inventor;

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United States Patent Office.

JEREMIAH J. KING, OF NEW YORK, N. Y.

Letters Patent No. 95,024, *dated September* 21, 1869.

IMPROVED DOOR-KNOB.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JEREMIAH J. KING, of the city, county, and State of New York, have made certain new and useful Improvements in Constructing Door-Knobs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters of reference marked thereon.

In the manufacture of the ordinary knobs for door-locks, the knob is secured to the metal socket in which the lock-arbor is fitted, by means of cementing or casting the end of the socket with lead into the knob. The socket is made with lips, *a a*, as shown in fig. 1, and the knob has a central cavity, *b*, and from it several outward-spreading cavities, *c c*, for the lead, so that when the lips *a a* are placed in the cavity *b*, the soft metal or lead is filled in around the end of the socket, as shown in fig. 2, in which *e* represents the lead or metal cast in the knob to which the socket is secured.

In this mode of securing the knob, the lead or metal for casting has to be used very hot to run it, and consequently many of the knobs crack from unequal expansion, and generally in the direction as shown by the line *f f*, in fig. 2.

In pouring the lead or melted metal, although with care, it frequently obstructs the required aperture through the socket for the lock-arbor, and in consequence the said aperture has to be reamed out, and for making up for the shrinkage of the lead, is rammed down, a mandrel of proper size is driven in, as shown in red line in fig. 2, by which operation also great many knobs are cracked and destroyed.

The object of this invention is to secure the socket to the knob in a more reliable and less risky and expensive manner, and so that the cementing of lead is entirely dispensed with, and that the knob is durably secured with little labor and expense.

The nature of this invention consists in providing and constructing the socket with expansible prongs, and the knob with corresponding outward-extending cavities, so that, by forcing or pressing the socket, with its prongs, into the cavities of the knob sufficiently that the shoulder on the socket meets upon the face of the knob, the socket interlocks in the knob and becomes tightly secured therein. By these means the casting on of the socket is dispensed with. They can be easily secured without cracking the knobs, and the expense of the metal to cast them in, and a great deal of labor is saved, and the knob more durable and better secured than with those heretofore known or used.

To enable others skilled in the art to make and use my invention, I will proceed to describe its details and operations.

In the drawing—

Figure 3 represents a perspective view of the socket of a door-knob constructed with my improvements;

Figure 4 is an end view; and

Figure 5, a central longitudinal section of the same.

Figure 6 is a vertical section of the knob to the same.

Figure 7, a longitudinal section of the socket and knob, exhibiting the manner of operation after being secured therein.

Similar letters of reference indicate like parts in the several figures.

A represents the usual shank, and B the ordinary shoulder, and C the usual square aperture for the lock-arbor of the socket.

Now, in front of the shoulder, I construct the socket with a small shoulder, C′, and extending from it two, three, or more prongs, D D D, which are cast on, and form part of the same. They are distributed at equal distance apart and around from the aperture C.

E represents a central cavity formed in the face of knob sufficiently large for the small shoulder C′ to enter. On the corner of its termination I construct the knob with several deep holes or cavities, F F F, corresponding on their entrance, for the prongs D D D to enter while spreading toward the periphery of the knob, and the prongs D D are made of proportionate length and thickness to allow of being bent and spread into these cavities F F F.

The outer ends of the prongs I prefer to have tapered off, as shown at *x*, from their inside to the outside on their ends.

Now, after having the knob and sockets, cast or moulded on hand, as described, the same are secured together in the simple manner of placing the prongs of the socket in the respective cavities F F F of the knob, and the socket, with the knob, is placed in a vise or other means for pressing, as shown in fig. 7, and by applying the pressure the prongs of the socket are forced and spread in the holes F F until the shoulder B rests against the face of the knob, whereafter the socket is completely secured to the knob and is removed from the vise.

In sockets made of cast-iron or other more brittle substances, I construct the prongs of soft metal, such as wrought-iron and cast them with the socket.

By these means the metal for casting on the socket on the knob is saved the labor of ramming and reaming the socket, and after being secured, is dispensed

with, and great many knobs are saved which are now broken and destroyed by pouring the hot metal thereon, and by reaming the socket and ramming the lead down, and the socket is more firmly secured in the knob than with those heretofore.

I am aware of the patent granted to William Boch, dated March 24th, 1868, but his invention I disclaim.

Having fully described my invention.

What I claim therein, and desire to secure by Letters Patent is—

The knob formed with a central cavity, E, and inclined channels, F F, into which the prongs D D of the socket A are made to enter by pressure on the socket, without the aid of separate wedges, as herein shown and described, for the purpose specified.

JEREMIAH J. KING.

Witnesses:

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J. BERMOND.